SunLong Biotech Co.,LTD
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[Marker Primary Antibody]

Rabbit Anti-VEGFR3/AF647 Conjugated antibody

Catalog Number: SL1083R-AF647

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-VEGFR3/AF647
Immunogen:	KLH conjugated synthetic peptide derived from mouse VEGFR3
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse,Rat(predicted:Dog,Pig,Horse,Rabbit)
Background:	background: Vascular endothelial growth factors (VEGFs) are a family of closely related growth factors having a conserved pattern of eight cysteine esidues and sharing common VEGF receptors. VEGFs stimulate the proliferation of endothelial cells, induce angiogenesis, and increase vascular permeability in both large and small vessels. The mitogenic activity of VEGFs appears to be mediated by specific VEGF receptors. VEGF Receptor 3 is one of the five receptor tyrosine kinases (RTKs) (VEGF Receptor 1/Flt1, VEGF Receptor 2/KDR/Flk1, VEGF Receptor 3/Flt4, tie1 and tek/tie2) whose expression is almost exclusively restricted to endothelial cells. **Function:** Tyrosine-protein kinase that acts as a cell-surface receptor for VEGFC and VEGFD, and plays an essential role in adult lymphangiogenesis and in the development of the vascular network and the cardiovascular system during embryonic development. Promotes proliferation, survival and migration of endothelial cells, and regulates angiogenic sprouting. Signaling by activated FLT4 leads to enhanced production of VEGFC, and to a lesser degree

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	VEGFA, thereby creating a positive feedback loop that enhances FLT4 signaling. Modulates KDR signaling by forming heterodimers. Mediates activation of the MAPK1/ERK2, MAPK3/ERK1 signaling pathway, of MAPK8 and the JUN signaling pathway, and of the AKT1 signaling pathway. Phosphorylates SHC1. Mediates phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase. Promotes phosphorylation of MAPK8 at 'Thr-183' and 'Tyr-185', and of AKT1 at 'Ser-473'. **Subunit:** Interacts with VEGFC and VEGFD. Monomer in the absence of bound VEGFC or VEGFD. Homodimer in the presence of bound VEGFC or VEGFD. Can also form a heterodimer with KDR. Interacts with PTPN14; the interaction is enhanced by stimulation with VEGFC. Interacts with CRK, GRB2, PTK2/FAK1, SHC1, PIK3R1 and PTPN11/SHP-2. Identified in a complex with SRC and ITGB1. **Subcellular Location:** Cell membrane; Single-pass type I membrane protein. Cytoplasm. Nucleus. Note=Ligand-mediated autophosphorylation leads to rapid internalization. **Tissue Specificity:** Expressed in adult lung and liver, and in fetal liver, brain, intestine and placenta. **Post-translational modifications:** Autophosphorylated on tyrosine residues upon ligand binding. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit. Phosphorylation in response to H(2)O(2) is mediated by a process that requires SRC and PRKCD activity. Phosphorylation at Tyr-1068 is required for autophosphorylation at additional tyrosine residues. Phosphorylation at Tyr-1063 and Tyr-1337 is important for interaction with CRK and subsequent activation of MAPK8. Phosphorylation at Tyr-1230, Tyr-1231 and Tyr-1337 is important for interaction with GRB2 and subsequent activation of the AKT1 and MAPK1/ERK2 and/or MAPK3/ERK1 signaling pathways. In response to endothelial cell adhesion onto collagen, can also be phosphorylated in the absence of FLT4 kinase activity by SRC. **Similarity:** Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily. Contains 7 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 protein kinase domain. **Database links:** **Entrez Gene:** 2324 Human **Entrez Gene:** 14257 Mouse **Entrez Gene:** 114110 Rat Omim: 136352 Human

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	SwissProt: P35916 Human **SwissProt:** P35917 Mouse **SwissProt:** Q91ZT1 Rat **Unigene:** 646917 Human **Unigene:** 3291 Mouse **Unigene:** 81043 Rat Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. VEGFR3, also known as FLt4, is mainly expressed on lymphatic endothelial cells of mature tissues. VEGFR3 is associated with the proliferation and migration of lymphatic endothelial cells and can stimulate lymphangiogenesis. It is currently mostly used in research on Tumour metastasis.